

Resistance In Series and Parallel Problem Set

Directions: Solve these problems on a separate piece of paper *showing all work (list the variables, equation, numbers plugged into the equation, and final answer with units!)*

1. How much current flows through a series circuit that includes a 2 ohm light bulb, 3 ohm resistor and 9 ohm motor if it has a 12-volt battery?
2. How much current flows through a parallel circuit that includes a 2 ohm light bulb, 3 ohm resistor and 9 ohm motor if it has a 12-volt battery?
3. How much current flows through a series circuit that includes a 1 ohm light bulb, 2 ohm resistor and 5 ohm motor if it has a 9-volt battery?
4. How much current flows through a parallel circuit that includes a 1 ohm light bulb, 2 ohm resistor and 5 ohm motor if it has a 9-volt battery?
5. What is the voltage in a series circuit that includes a 2 ohm light bulb, 4 ohm resistor and 5 ohm motor if the current is 0.5 amperes?
6. What is the voltage in a parallel circuit that includes a 2 ohm light bulb, 4 ohm resistor and 5 ohm motor if the current is 0.5 amperes?

Resistance In Series and Parallel Problem Set

Directions: Solve these problems on a separate piece of paper *showing all work (list the variables, equation, numbers plugged into the equation, and final answer with units!)*

1. How much current flows through a series circuit that includes a 2 ohm light bulb, 3 ohm resistor and 9 ohm motor if it has a 12-volt battery?
2. How much current flows through a parallel circuit that includes a 2 ohm light bulb, 3 ohm resistor and 9 ohm motor if it has a 12-volt battery?
3. How much current flows through a series circuit that includes a 1 ohm light bulb, 2 ohm resistor and 5 ohm motor if it has a 9-volt battery?
4. How much current flows through a parallel circuit that includes a 1 ohm light bulb, 2 ohm resistor and 5 ohm motor if it has a 9-volt battery?
5. What is the voltage in a series circuit that includes a 2 ohm light bulb, 4 ohm resistor and 5 ohm motor if the current is 0.5 amperes?
6. What is the voltage in a parallel circuit that includes a 2 ohm light bulb, 4 ohm resistor and 5 ohm motor if the current is 0.5 amperes?